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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,104	06/09/2000	Hiroyoshi Suzuki	16869P010000US	3405

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TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

BATAILLE, PIERRE MICHE

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/591,104

**Applicant(s)**

SUZUKI ET AL.

**Examiner**

Pierre-Michel Bataille

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,5,8 and 9 is/are allowed.
- 6) ☒ Claim(s) 2,4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is taken in response to Applicant's communication filed November 28, 2003 responding to Official Action dated July 23, 2003. Applicant amendments and/or arguments have been considered with the results that follow.
2. Claims 1-8 were originally presented in the application under examination. Of the original claims, no claim has been canceled; new claim 9 has been added. Therefore, claims 1-9 are now pending in the application.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 2, 4, and 6-7 have been fully considered but are not deemed to be persuasive for at least the following remarks.

With respect to claim 2, Applicant argues that RAM memory buffer 28 of Cornaby et al (US 5,875,349) is not a cache but agrees that RAM memory buffer 28 is in hard drive 27 shown in Fig. 1. Cornaby discloses (Col. 4, Lines 7-15; Col. 1, Lines 13-16) storing operating data and code in the system RAM for controlling the operation of the data storage device and for use by the host computer and/or the data storage device. This fact classifies RAM memory buffer as cache because staging of data and destaging of the data are performed into/from the cache memory. Cornaby further discloses (see Col. 14, Lines 14-43) loading at anytime after start-up operating code or data into the system memory with such operating data/code being updatable to allow

operating data/code to be updated by simply transferring the updated version from the RAM system RAM to the storage device of the hard disk.

Applicant further argues that, even if the RAM buffer memory 28 was a cache, the host computer module 11 of Cornaby does not manipulate the cache that is on the hard drive. However, Col. 15, lines 27-30 discloses the operating code/data are host computer executable making up a host executable firmware. Even if the host computer module 11 of Cornaby did not manipulate the cache, claim 2 requires user defined information "**or**" operating information of the external storage system.

With these remarks, rejection with respect to claims 2, 4, and 6-7 is maintained and repeated below.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 4, and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,875,349 (Cornaby et al).

Cornaby discloses a conventional system, an external storage subsystem (Hard disk drive 19, 27, Fig. 1) comprising: a cache memory (RAM memory buffer 28, 34) to store operating data and code for controlling the operation of the data storage device in

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the system RAM for use by the host computer and/or the data storage device (Col. 4, Lines 7-15; Col. 1, Lines 13-16]; and SCSI (small computer system interface) adapter card) Col. 4, Line 54-55) through which a connection with host computer module 11 can be established for reading and writing data [Col. 7, Lines 44-59], wherein staging of the data into the cache memory and destaging of the data from the cache memory are performed according to system BIOS code 14 from the host computer module 11 [Col. 5, Lines 26-49, Lines 54-63].

As to claim 2, Cornaby discloses an external storage subsystem having a cache memory to store data temporarily Col. 4, Lines 7-15; Col. 1, Lines 13-16], and in which user data is stored in the cache memory and removed from the cache memory based on user defined information or upon operating information of the external storage subsystem [Col. 6, Lines 56-59].

With respect to claims 4 and 6-7, Cornaby discloses storage in or removal from the cache memory of the user data is executed in a processing unit of data-set domain [(system BIOS and extension BIOS) Col 6, Lines 13-28, Lines 53-56].

### ***Allowable Subject Matter***

6. Claims 1, 3, 5, 8-9 are allowed.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

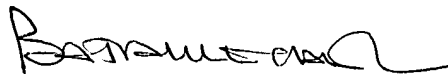
8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Michel Bataille whose telephone number is (703) 305-0134. The examiner can normally be reached on Tue-Fri (7:30A to 6:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (703) 305-3821. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
Pierre-Michel Bataille  
Primary Examiner  
Art Unit 2186

January 23, 2004